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EXAMINER
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OCHOA, JUAN CARLOS

ART UNIT	PAPER NUMBER
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2123

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/826,630	<b>Applicant(s)</b> PINTO ET AL.	
	<b>Examiner</b> JUAN C. OCHOA	<b>Art Unit</b> 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-19, 22, 23 and 25-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-19, 22, 23 and 25-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/20/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The amendment filed 10/20/08 has been received and considered. Claims 1–11, 13–19, 22, 23, and 25–40 are presented for examination.

### ***Claim Interpretation***

2. Office personnel are to give claims their "broadest reasonable interpretation" in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541,550-551 (CCPA 1969). See \*also In re Zletz, 893 F.2d 319,321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow").... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.
3. Claims recite "concordance scores". The specification defines "concordance scores" as "area under curve":

"the user by means of point and click or checkbox can invoke software that automatically computes (d) candidate model statistical features tables which display ranked significant variables and goodness-of-fit as measured by the c-statistic (i.e., the area under the receiver-operator-characteristic (ROC) curve)" (see page 10, lines 6–10).

"Clicking on the comparative model statistics button compares the concordance (area under ROC Curve) for both the sample dataset and the validation dataset as shown in FIGS. 25B and 25C." (see page 37, lines 5–7 and Figs. 25B and 25C).

"The concordance statistic (c) [area under curve] of the validation dataset..." (see page 37, line 9).

4. The claims reciting "concordance scores" were interpreted as "area under curve".

### ***Claim Objections***

5. Claims 1, 4, 17, 18, 27, 28, and 30 recite the limitations "the historical data" and "the data". There is insufficient antecedent basis for these limitations in the amended claims. The amended claims refer to "the historical data", but recite only "the data" earlier in the claims. Also, the amended claims refer to "the data", but recite only "the historical data" earlier in the claims. That is, "the historical data" and "the data" may (if used interchangeably) or may not refer to the same *dataset*. If "the historical data" and "the data" refer to the same *dataset* (if used interchangeably), Applicants are directed to not use different terms to mean the same object.

6. Claim 30 claims "the propensity computed by the model". A description of a model computing propensity is non-existent in the application description, and this may raise indefiniteness issues.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1–11, 13–19, 22, 23, and 25–30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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9. Claim 1, as amended, fails to perform the method set forth in the limitation “in connection with a project in which a user generates a predictive model based on historical data about a system being modeled”. In the body of the claim which follows this limitation, no predictive model is generated. This limitation is dangling. In the amended claim, Examiner is unclear if this limitation is part of the preamble or the body of the claim because of the amended colon which follows “method comprising”. See *colons in claim 1 lines 1 and 3*. Examiner interprets this limitation as part of the body of the claim for examination purposes.

10. Claim 1 recites a machine-based method comprising limitations which generate a possible model and a final model. However, the limitation “in connection with a project in which a user generates a predictive model based on historical data about a system being modeled” has a user generating a predictive model. Which one is it? Is a machine to generate a model(s) or a user to generate his model? Examiner is unsure about the scope of the claims.

11. Claims 34–40 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. In claim 34, as amended, both limitations (receiving potential predictor and dependent variables representing historical data and model generation–combination) are dangling. Both limitations are disconnected.

12. Dependent claims inherit the defect of the claim from which they depend.

***Claim Rejections - 35 USC § 103***

13. Due to the 35 U.S.C. 112 second paragraph rejections as noted above, the Examiner has given the claims a broad reasonable interpretation and has applied prior art to the claims as best understood by the examiner.

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 1–11, 13–19, 22, 23, 25–30, and 34–40, are rejected under 35 U.S.C. 103(a) as being unpatentable over by Cabena et al., (Cabena hereinafter), Intelligent Miner for Data Applications Guide (see IDS dated 12/18/06), taken in view of Harrison, (Harrison hereinafter), An Intelligent Business Forecasting System (see IDS dated 12/18/06), and further in view of applicant's admission of prior art (AAPA hereinafter) as specified in IDS dated 05/27/05.

18. As to claim 1, Cabena discloses a machine-based method comprising: in connection with a project in which a user generates a predictive model based on historical data about a system being modeled (see chapter 1.5.1, Pages 9-11): selecting variables having at least a first predetermined level of significance from a pool of potential predictor variables associated with the data, to form a first population of predictor variables (see page 101, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs), extending the first population of predictor variables (see page 93, 2<sup>nd</sup> paragraph) and extending the first population of predictor variables (see "supplementary variables" in "All other discrete and categorical variables and some interesting continuous variables were input as supplementary variables to be profiled with the clusters but not used to define them. These supplementary variables can be used to interpret the cluster as well. The ability to add supplementary variables at the outset of clustering is a very useful feature of Intelligent Miner, which allows the direct interpretation of clusters using other data very quickly and easily" in page 48, 1<sup>st</sup> paragraph), generating a possible model of the third

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population of predictor variables using a subsample of the historical data by the model generation method (see "Feature Selection" and "Train and Test" in page 95), determining whether the possible model generalizes to the historical data other than the subsample (see page 101, last paragraph), applying the possible model to all of the historical data to generate a final model, cross-validating the final model using random portions of the historical data (see page 97, last paragraph), and interacting with the system being modeled based on the final model (see "To ensure that the model has not overfit the data and to assess the model performance against a data set that has the same characteristics as the application universe, the model should be executed against the test data in test mode" in page 102, 1<sup>st</sup> paragraph, lines 1–5 and "After having iteratively improved the models, you chose the best model" in page 102, 3<sup>rd</sup> paragraph, line 1).

19. While Cabena discloses generating a predictive model based on historical data about a system being modeled, Cabena fails to disclose automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data.

20. Harrison discloses automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data (see page 233, col. 2, next to last paragraph, last 7 lines).

21. AAPA discloses including cross products of at least two variables, each being from the first population of predictor variables, selecting variables having at least a second predetermined level of significance from the extended first population of



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predictor variables to form a second population of predictor variables, extending the second population of predictor variables to include cross products of at least two variables, at least one of the variables being from the first population of predictor variables and having less than the first predetermined level of significance, selecting variables having at least a third predetermined level of significance from the extended second population of predictor variables to form a third population of predictor variables.

22. Cabena and Harrison are analogous art because they are both related to predictive modelling.

23. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to utilize the automatic model selection of Harrison in the method of Cabena because Harrison explore the possibility of the integration of expert systems technology with a forecasting decision support system (see page 229, col. 1, lines 1–4), and as a result, Harrison reports that testing of his prototype shows that the system is useful for managers who have no forecasting technique and computing background and want to improve their decision making by means of quantitative forecasting (see page 235, col. 2, next to last paragraph).

24. As to claim 2, Cabena discloses a method also including displaying information to the user of the size of the pool of potential predictor variables (see "Visualizations with only one or two regions" in page 101, 3<sup>rd</sup> paragraph, line 2).

25. As to claim 3, Cabena discloses a method also including enabling a user to point and click to reduce or extend the size of the pool of potential predictor variables, retaining only predictor variables having at least the second predetermined level of

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significance (see "remove the strong variables from the chosen input fields and split the data into multiple files based on the segmentation by the strong variables as indicated by the tree" in page 101, 3<sup>rd</sup> paragraph, lines 4–7).

26. As to claim 4, Cabena discloses a method in which the user is enabled to invoke an automatic process to select a class of models most suitable to the pool of potential predictor variables associated with the data (see page 118, last paragraph).

27. As to claim 5, Cabena discloses a method in which the user is enabled to point and click to adjust a criterion of the model selection to retain only the variables having at least a certain level of significance for a target goal (see page 133, 1<sup>st</sup> paragraph).

28. As to claim 6, Cabena discloses a method in which the user is enabled to point and click to cause display of information about performance of the possible model or the final model (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7<sup>th</sup> paragraph and/or page 101, last paragraph, lines 1–3).

29. As to claim 7, Cabena discloses a method in which the information includes at least one of: a statistical report card, a link to a statistical report chart, a lift chart, a link to the lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs), a response comparison chart for each decile for each predictor variable in the possible model or the final model, or a link to the response comparison chart.

30. As to claim 8, Cabena discloses a method in which invocation of the link to the statistical report card causes display of the statistics of the performance of the possible model or the final model (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7<sup>th</sup> paragraph).

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31. As to claim 9, Cabena discloses a method in which invocation of the link to the lift chart causes display of a non-cumulative lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs).

32. As to claim 10, Cabena discloses a method in which invocation of the link to the response comparison chart causes display of a response chart for each predictor variable in the possible model or the final model for each segment of interest (see "Method 2" in page 119, 3<sup>rd</sup> paragraph).

33. As to claim 11, Cabena discloses a method in which a user is enabled to choose interactively at least one performance criterion change or transformation or interaction of variables to improve a fit of the possible model or the final model (see "Maximum tree depth" in page 97, 4<sup>th</sup> paragraph).

34. As to claim 13, Cabena discloses a method in which the user is enabled to select at least one validation dataset and invoke a model process validation method (see "Value Prediction with RBF" in pages 97 and 98).

35. As to claim 14, Cabena discloses a method in which the user is enabled to point and click to cause display of information about the model process validation (see "Results Visualization" in page 100, 6<sup>th</sup> paragraph).

36. As to claim 15, Cabena discloses a method in which the information about the model process validation includes at least one of: a statistical report card, a link to a statistical report chart, a cumulative lift chart, a link to the cumulative lift chart and a non-cumulative lift chart, a link to the non-cumulative lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs).

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37. As to claim 16, Cabena discloses a method in which the user is enabled to select at least one machine automated model development process applied to the entire dataset for a validated model process (see "Network architecture" in page 99, 3<sup>rd</sup> paragraph).

38. As to claim 17, Cabena discloses a method in which the user is enabled to point and click to cause display of information about the performance of the validated model process applied to the entire set of historical data (see page 101, last paragraph, lines 1–3).

39. As to claim 18, Cabena discloses a method in which the information about the performance comprises information about the performance of the validated model process applied to two independent data subsets, the independent data subsets being randomly selected from the historical data, includes at least one of: a statistical report card, a link to a statistical report chart, a cumulative lift chart, a link to the cumulative lift chart and a non-cumulative lift chart, a link to the non-cumulative lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs).

40. As to claim 19, Cabena discloses a method in which the invocation of the link to the statistical report card causes display of the statistics of model process validation (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7<sup>th</sup> paragraph and/or page 101, last paragraph, lines 1–3).

41. As to claim 22, Cabena discloses a method in which the final model and the model process validation results are stored persistently (see "Processing settings

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objects always ... create output data in a database" in page 24, "Processing Functions", 3<sup>rd</sup> paragraph, lines 1–2).

42. As to claim 23, Cabena discloses a method also including enabling the user to observe the number of predictor variables available for generating the predictive model (see "remove the strong variables from the chosen input fields and split the data into multiple files based on the segmentation by the strong variables as indicated by the tree" in page 101, 3<sup>rd</sup> paragraph, lines 4–7).

43. As to claim 25, Cabena discloses a method also including enabling the user to observe the performance of the possible model or the final model by means of links to a plurality of statistical and graphical reports (see "Results Visualization" in pages 100 and 101).

44. As to claim 26, Cabena discloses a method also enabling the user to select a means of validating the selected model generation method (see "Value Prediction with RBF" in pages 97 and 98).

45. As to claim 27, Cabena discloses a method also enabling the user to observe the performance of the possible model or the final model when applied to a training subset and a validation subset of the historical data (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7<sup>th</sup> paragraph and/or page 101, last paragraph, lines 1–3).

46. As to claim 28, Cabena discloses a method also enabling the user to invoke at least one validated model generation method to produce a final model and enabling the use to observe the performance of the final model on at least two independent subsets,

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the independent subsets being randomly selected from the historical data (see page 101, last paragraph, lines 1–3).

47. As to claim 29, Cabena discloses a method enabling the persisting of the final model and intermediate results to a project database (see "Processing settings objects always ... create output data in a database" in page 24, "Processing Functions", 3<sup>rd</sup> paragraph, lines 1–2).

48. As to claim 30, Cabena discloses a method enabling the final model to be applied to scoring at least one non-historical dataset wherein the propensity computed by the model is indexed by the score (see page 11, 2<sup>nd</sup> paragraph).

49. As to claim 34, Cabena discloses a machine-based method comprising receiving from separate sources, sets of potential predictor and dependent variables representing historical data about a system being modeled (see page 90, Fig. 46; page 92, paragraphs 2–5). While Cabena discloses combining based on the dependent variables from the sets of potential predictor and dependent variables, Cabena fails to disclose combining at least two models. Harrison discloses combining at least two models (see page 233, col. 2, next to last paragraph, lines 11–15 and last paragraph). AAPA discloses combining based on response propensities of each model in order to create cross-modal deciles and based on data weaving to provide cross-modal optimization, the combining including concatenating the predictions of the two models.

50. As to claim 35, Cabena discloses a method in which enabling the user to combine the models includes providing a user interface that enables the user to identify variables to be combined (see page 21, 1<sup>st</sup> paragraph).

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51. As to claim 36, Cabena discloses a method in which the system being modeled comprises behavior of prospective or current customers with respect to products or services of a company and the method also includes adjusting outcome variables to normalize response rates across products or services with different response rates (see page 90, 2<sup>nd</sup> line from the bottom to page 91, 2<sup>nd</sup> line).

52. As to claim 37, Cabena discloses a method in which the system being modeled comprises behavior of current customers with respect to retention of a current service or product of a vendor and the method also includes adjusting variables to normalize response rates across products or services with different response rates, using the computed propensities as indices of the scores (see page 90, 2<sup>nd</sup> line from the bottom to page 91, 2<sup>nd</sup> line).

53. As to claim 38, Cabena discloses a method also comprising determining a course of action to yield the most positive net present value outcome (see "the most positive NPV outcome" as "increase its profitability" in page 32, 3<sup>rd</sup> paragraph).

54. As to claim 39, Cabena discloses a method in which the determining includes selection of a mix of channel (see page 30, last paragraph) and product combinations (see "product associations" in page 32, 3<sup>rd</sup> paragraph).

55. As to claim 40, Cabena discloses a method in which the determining includes predicting retention in combination with response rate to predict net present value (see page 28, 2<sup>nd</sup> paragraph).

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56. Claims 31–33 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Cabena taken in view of Harrison, and further in view of Galperin et al., (Galperin hereinafter), U.S. Patent 6640215 (see IDS dated 2/28/05).

57. As to claim 31, Cabena discloses a machine-based method comprising in connection with a project, generating a predictive model based on the historical data (see chapter 1.5.1, Pages 9-11), and displaying to a user a lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs), monotonicity (see page 101, last paragraph, last 3 lines and page 119, 2<sup>nd</sup> bullet from the bottom), and concordance scores (see Chapter 1.5.1, Pages 9-11) associated with each step in a step-wise model fitting process (see page 98, 2<sup>nd</sup> paragraph). While Cabena discloses generating a predictive model based on historical data about a system being modeled, Cabena fails to disclose automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data. Harrison discloses automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data about a system being modeled (see page 233, col. 2, next to last paragraph, last 7 lines).

58. Cabena nor Harrison do not expressly disclose displaying to a user concordance scores.

59. Such feature is however well-known in the art. Examiner notes that the claims reciting "concordance scores" were interpreted as "area under curve".

60. In fact, Galperin teaches calculating concordance scores being obtained based on a receiver-operator-characteristic curve and indicating to the user goodness of fit of



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the historical data to the generated predictive model. (See “measures the **integral** criterion of lift **within a range** [x1, x2] (say, between 20% and 50%) calculated by the formula ... “ in col. 3, lines 18–28 and col. 4, lines 8–27).

61. Cabena, Harrison, and Galperin are analogous art because they are related to predictive modelling.

62. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to utilize the automatic model selection of Galperin in the Cabena–Harrison method because Galperin solves for lift, accomplishing the following advantages over existing commercial techniques: tuning to a predefined interval of a sorted customer list and using a variety of different modeling approaches (see col. 2, lines 13–40), and as a result, Galperin reports that by using his invention marketing analysts will be better able to: predict the propensity of individual prospects to respond to an offer; identify customers and prospects who are most likely to default on loans or prepay loans; identify customers who are most amenable to cross-sell and up-sell opportunities; predict claims experience, so that insurers can better establish risk and set premiums appropriately; and identify instances of credit-card fraud (see col. 2, lines 40–54) as well as that using his invention in conjunction with a neural network provides models for analyzing data to indicate the individuals or classes of individuals who are most likely to respond to targeted marketing (see col. 5, lines 40–44).

63. As to claim 32, Cabena discloses a method also including enabling the user to observe changes in the fit as variables associated with the historical data are added or

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removed from a predictor set of the variables (see "Maximum tree depth" in page 97, 4<sup>th</sup> paragraph).

64. As to claim 33, Cabena discloses a method also including enabling the user to terminate the fitting process when the fitting process reaches an optimal point (see "Maximum number of passes" in page 98, 2<sup>nd</sup> paragraph).

### **Response to Arguments**

65. Applicant's arguments filed 10/20/08 have been fully considered, but they are not persuasive.

66. Regarding the IDS objections, deficiencies remain.

67. Regarding the rejection under 103. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. In the instant rejection, Examiner has elaborated prior art disclosures of amended claims.

68. As to Applicant arguments, (see page 13) that Cabena fails to teach "concordance scores being obtained based on a receiver-operator-characteristic curve and indicating to the user goodness of fit of the historical data to the generated predictive model". Examiner notes that concordance scores were interpreted as "area under curve" by the Examiner. Examiner again notes that "displaying to a user the area under a curve" is trivial to any engineer. Additionally, Examiner noted that displaying to a user the area under a curve was well known at the time the invention was made in the analogous art of Chapman. (See "area under a curve" in "Outputs. Derived Attributes. Derived attributes are new attributes that are constructed from one or more existing attributes in the same record. An example might be **area=length \* width**" in page 50,

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2<sup>nd</sup> paragraph and “displaying to a user “ in “The outputs produced during the Modeling phase can be combined into one report” in page 66, 1<sup>st</sup> paragraph, line 1). Anyway, Applicant's arguments are moot in view of the new ground(s) of rejection. In the instant rejection, Examiner has elaborated prior art disclosures of amended claims.

### ***Conclusion***

69. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

70. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

71. Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

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72. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan C. Ochoa whose telephone number is (571) 272-2625. The examiner can normally be reached on 7:30AM - 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

73. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/J. C. O./ 1/8/09  
Examiner, Art Unit 2123

/Paul L Rodriguez/

Supervisory Patent Examiner, Art Unit 2123